

Work Order ID 90684***90684***

Page 1

Item ID: D2600-5-108

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Extrusion 'I Beam' thin

Stop ***NS2***

Start Date: 9/24/12 Start Qty: 60.00

60

Cust Item ID:

Required Date: 10/08/12 Req'd Qty: 60.00

60

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start ***NR1***

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D2600

E

100

0.00

100

PURCHASING

Purchasing

Memo

0.00

Purchasing

Issue P/O: 17996

a) Extrude as per Dwg D2600 (108" long)

b) Material: 6061-T6

c) Material certification is required.

CZ 12/09/26 120

110

0.00

110

Receive & Inspect for Damage & Mat'l Certs

Packaging

Memo

0.00

Packaging

Ensure certification is attached

12/10/19 (120)

Work Order ID 90684

90684

Page 2

September-24-12 11:18:34 AM

Item ID: D2600-5-108

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Extrusion 'I Beam' thin

Stop *NS2*

Start Date: 9/24/12 Start Qty: 60.00

60

Cust Item ID:

Required Date: 10/08/12 Req'd Qty: 60.00

60

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC6- Inspect dimensions to drawing	0.00							
120									
QC	Memo	0.00							
Quality Control	2-Check Pull test per Dwg D2600 for compliance page attached. 3-Check hardness with Webster tester								
	* Pull Qty + 20PCS For QC inspection *								
130	Identify as per dwg & Stock Location: 46	0.00							
130									
Packaging	Memo	0.00							
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

DAS 16 12/10/26

[Handwritten signature]

12-10-23

120

12/10/29

12-10-24

Picklist Print

September-24-12 11:18:34 AM

Page 1

Work Order ID: 90684

Parent Item: D2600-5-108

Start Date: 9/24/12

Required Date: 10/08/12

Parent Item Name: Extrusion 'I Beam' thin

Start Qty: 60.00

Required Qty: 60.00

Comments: IPP F02.09.10Added DSK 066KJ/RF

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2600-5-108P Extrusion 'I Beam' thin		Purchased	No			110	Each	0.0000	1	60 120		9/24/12	

120

SPECIFICATION CONTROL DRAWING

D2600-X-XXX EXTRUSION

NOTES:

1) MATERIAL: 6061-T6 ALUMINUM PER QQ-A-200/8 OR AMS-QQ-A-200/8 OR ASTM B221

MINIMUM TENSILE YIELD STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 40 KSI
MINIMUM ELONGATION = 8%

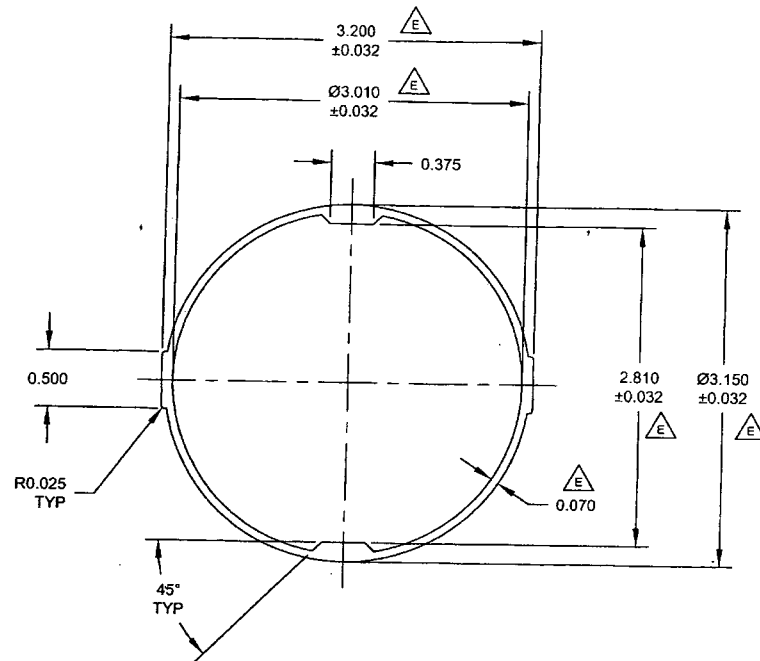
A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE ABOVE MINIMUM MECHANICAL PROPERTIES

- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N & B/N PER DART QSI 044 6.1 (FINE POINT PERMANENT INK MARKER)
- 7) WEIGHT: D2600-1 = 0.078 lb/in, D2600-3 = 0.130 lb/in, D2600-5 = 0.045 lb/in, D2600-7 = 0.091 lb/in
- 8) NO TOOLING MARKS
- 9) FOR D2600-1, PART NUMBER IS D2600-1-XXX WHERE XXX IS CUT LENGTH (EX. D2600-1-160 IS 160" LONG).
D2600-1 EXTRUSION MANUFACTURED FROM:
 - CARADON INDALEX DIE # MH-18870
 - SIGNATURE ALUMINUM (BON-L) DIE # 897121
- 10) FOR D2600-3, PART NUMBER IS D2600-3-XXX WHERE XXX IS CUT LENGTH (EX. D2600-3-120 IS 120" LONG).
D2600-3 EXTRUSION MANUFACTURED FROM:
 - CARADON INDALEX DIE # MH-18859
 - SIGNATURE ALUMINUM (BON-L) DIE # 897122
- 11) FOR D2600-5, PART NUMBER IS D2600-5-XXX WHERE XXX IS CUT LENGTH (EX. D2600-5-108 IS 108" LONG).
D2600-5 EXTRUSION MANUFACTURED FROM:
 - CARADON INDALEX DIE # MS-18871
- 12) FOR D2600-7, PART NUMBER IS D2600-7-XXX WHERE XXX IS CUT LENGTH (EX. D2600-7-125 IS 125" LONG).
D2600-7 EXTRUSION MANUFACTURED FROM:
 - CARADON INDALEX DIE # MS-18872

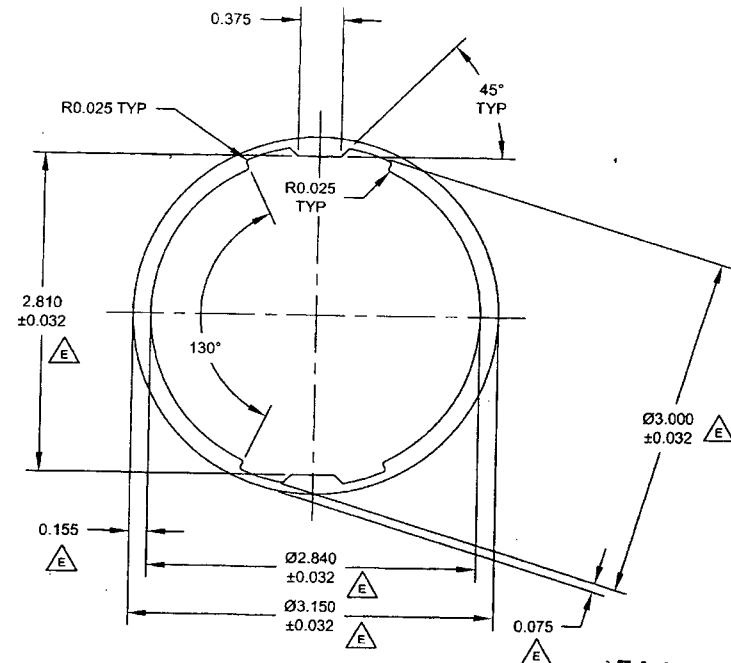
CD 12/09/24
W/O: 90684

RELEASED
R 2012-01-11

REV.	DESCRIPTION	BY	DATE
E	REFORMAT DWG; ALL DIMS & TOL. UPDATE TO MATCH MFG DIE DWGS; ADD ASTM B221 SPEC (D8-1)	CP	11.10.18
D	INCREASE MIN. UTS TO 40 KSI	DS	98.08.20
C	ADD D2600-3, UPDATE D2600-1 WIDTH, ADD DIE NO.	DS	98.04.16
B	CHANGE MATERIAL SPEC.	DS	97.09.09
A	NEW ISSUE	DS	97.01.21
DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>[Signature]</i>		
CHECKED	<i>ASS</i>	DRAWING NO.	REV. E
MFG. APPR.	<i>[Signature]</i>	D2600	SHEET 1 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	EXTRUSION	NTS
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D2600-1 EXTRUSION



D2600-3 EXTRUSION

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DRAWN	Q	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AS	DRAWING NO.	REV. E
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APPROVED	W/D	TITLE	SCALE
DE APPR.	#	EXTRUSION	NTS
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DRAWN	<i>0</i>		SHEET 3 OF 3
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APPROVED	<i>[Signature]</i>		
DE APPR.	<i>[Signature]</i>		
DATE	11.10.18		

325 rue Avro
Pointe-Claire, QC, Canada H9R 5W3
Téléphone (514) 697-5120
Fac-simile (514) 694-8310

sapa:

Rapport des propriétés mécaniques Mechanical Properties Test Report

Client / Customer : **DART AEROSPACE LTD**
Adresse / Address : **1270 ABERDEEN STREET
HAWKESBURY ONT,
K6A 1K7**

commande Sapa / Sapa order # : **2091757**

bon de commande / Purchase order # : **17996**

de matrice / Die # : **MS 18871**

Description : **D-2600-5 LIGHT DUTY WEB**

Alliage & trempage / Alloy & temper : **6061 T6**

Customer Part #: **D2600-5-108P**

Contrôle / Control # : **78531-1**

Coulée / Cast # : **55090**

S. 12/02/23

	Min.requis Min.required	Résultat-actuel Actual-results
Tension ultime Ultimate stress (psi)	38 000	42 084
Contrainte élastique Yield stress (psi)	35 000	40 309
% élongation dans 2" % elongation in 2"	8	8
Dureté Rockwell E (hre) Rockwell E Hardness (hre)	88 @ 100	94

Composition chimique typique / Typical chemical composition :

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
6063	0,20 - 0,60	0,35 Max	0,10 Max	0,10 Max	0,45 - 0,90	0,10 Max	0,10 Max	0,10 Max
6005	0,60 - 0,90	0,35 Max	0,10 Max	0,10 Max	0,40 - 0,60	0,10 Max	0,10 Max	0,10 Max
6005A	0,68 - 0,72	0,15 - 0,27	0,08 - 0,12	0,20 - 0,24	0,48 - 0,52	0,03 Max	0,05 Max	0,03 Max
6061	0,40 - 0,80	0,70 Max	0,15 - 0,40	0,15 Max	0,80 - 1,20	0,04 - 0,35	0,25 Max	0,15 Max
6351	0,7 - 1,3	0,5 Max	0,10 Max	0,40 - 0,80	0,40 - 0,80	—	0,20 Max	0,20 Max

Nous certifions que le matériel fourni rencontre les exigences chimiques telles qu'annoncées par la norme ASTM B-221-08 excepté pour la section 8.2 (nombre de spécimen) .

We hereby certify that the material supplied meets the chemical properties as published by the ASTM B-221-08 except for section 8.2 (number of specimen) .

Sincèrement vôtre,
Yours truly,

date : **2012-010-15**



Gilles Pelletier
Technicien de la qualité
Quality technician